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09/998,860

IN THE CLAIMS

Claims 1-30 (Previously Cancelled).

31. (Currently Amended) A method for beamforming by a base station, the method comprising:

- providing a mobile station's coordinate position to a spatial processing unit;
- providing a base station's coordinate position to the spatial processing unit;
- calculating ~~the~~ a direction of the mobile station with respect to the base station according to the mobile station's coordinate position and the base station's coordinate position;
- calculating ~~the~~ a number and a direction of beams according to information supplied by a multipath database that includes records of mobile station's coordinate position and corresponding angle of arrival of energy; and
- determining ~~the~~ a gain and a phase of each element of an antenna according to the number and the direction of beams.

32. (Currently Amended) A base station comprising:

- means for providing a mobile station's coordinate position to a spatial processing unit;
- means for providing ~~the~~ a base station's coordinate position to the spatial processing unit;
- means for calculating ~~the~~ a direction of the mobile station with respect to the base station according to the mobile station's coordinate position and the base station's coordinate position;
- means for calculating ~~the~~ a number and a direction of beams according to information supplied by a multipath database that includes records of mobile station's coordinate position and corresponding angle of arrival of energy; and
- means for determining ~~the~~ a gain and a phase of each element of an antenna according to the number and the direction of beams.

33. (Currently Amended) A base station comprising:

- a processor for providing a mobile station's coordinate position and the base station's coordinate position to a spatial processing unit;
- a spatial processing unit for calculating ~~the~~ a direction of the mobile station with respect to the base station according to the mobile station's coordinate position and the base station's

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coordinate position, for calculating ~~the~~ a number and a direction of beams according to information supplied by a multipath database that includes records of mobile station's coordinate position and corresponding angle of arrival of energy, and determining ~~the~~ a gain and a phase of each element of an antenna according to the number and the direction of beams.